

AMENDMENTS TO THE DRAWINGS

New corrected drawings in compliance with 37 C.F.R. 1.121(d) have been provided.

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REMARKS

Applicants request reconsideration of the above-identified application in light of the amendments and remarks described herein. Claims 1-7 were pending in this application. Claims 1 and 4 have been amended, and new Claim 8 has been added. Therefore, Claims 1-8 are now pending in this application.

Claims 1-7 have been rejected. Specifically, Claims 1-3 and 5-7 have been rejected under 35 U.S.C. § 102(b) and Claims 1 and 4 have been rejected under 35 U.S.C. § 103(a). In addition, Claim 4, the specification, and the drawings have been objected to. Applicants respectfully submit that the application is now in condition for allowance. Accordingly, applicants request reconsideration and allowance of all claims.

New Corrected Drawings

New corrected drawings in compliance with 37 C.F.R. 1.121(d) have been provided.

Objection to the Specification

The title has been objected to as being nondescriptive. Applicants respectfully disagree. Applicants submit that the title is suitably descriptive of the claimed invention because it corresponds with the preamble of Claim 1.

Claim Objection

Claim 4 has been objected to because of an informality. Appropriate corrections have been made.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-3 and 5-7 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,324,935, issued to Yasutake (hereinafter "Yasutake"). Applicants respectfully disagree.

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Yasutake generally describes a probe scanning microscope having a cantilever 2 and a probe 30. Referring to Figures 1 and 2 of Yasutake, the displacement optical system 5 includes a semiconductor laser 6 as a light source. In use, light irradiated from laser 6 is guided into the directional coupler 7, passed through fiber 7a, irradiated to the cantilever 2 from end surface 7b of fiber 7a, then reflected and returned to fiber 7a (see light components I₁ and I₂ in Figure 2). Interference fringes are generated from the two light components I₁ and I₂ on the surfaces of the photodiodes 8a and 8b, which transmit signals to the displacement detecting electric system 9. The distance between the end surface 7b of fiber 7a and the back surface of the cantilever 2 can be adjusted by piezoelectric element 3.

Claim 1, as amended, generally recites a scanning probe microscope including a cantilever, a light-emitting section, and a light-receiving section. The light-emitting section includes a light-emitting element and an input waveguide, wherein the input waveguide irradiates light from the light-emitting section towards the surface of the cantilever at an oblique angle. The light-receiving section includes an output waveguide and a light-receiving element, and the output waveguide receives light reflected by the surface at an oblique angle and guides the light towards the light-receiving element. The amendments to Claim 1 are supported by FIGURE 1 of the specification.

As is well known, anticipation requires the presence of each and every element of the claimed invention in a single prior art reference.

Yasutake fails to teach or suggest each and every element of the claimed invention. Specifically, Yasutake fails to teach or suggest an input waveguide irradiating light from a light-emitting section to the surface of the cantilever *at an oblique angle*, and an output waveguide receiving light reflected by the surface of the cantilever *at an oblique angle*. In contrast, Yasutake merely teaches that light reflects to and from the surface of the cantilever at a right

angle, as seen in Figure 2 of Yasutake. For at least these reasons, Claim 1 and the claims depending therefrom are not anticipated by Yasutake. Accordingly, applicants respectfully request withdrawal of the rejections to these claims.

Claim Rejections Under 35 U.S.C. § 103

Claims 1 and 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,161,053, issued to Dabbs (hereinafter "Dabbs"), in view of Yasutake. Applicants respectfully disagree.

Dabbs generally describes a confocal microscope, including a laser 31, a focusing element 32, a first optical fiber 34, a collimating lens 36, a polarizing beam splitter 37, a quarter waveplate 38, and an objective 39, all for processing laser light. Outgoing light resulting from interaction between illuminating laser light and the object 40 is collected by the objective 39 and collimated to form collimated outgoing light. This light passes through the quarter waveplate 38, and a portion of the outgoing light is reflected by polarizing beam splitter 37 onto focusing lens 41. Photodetector 45 detects outgoing light emerging from the exit end 44 of the second optical fiber 43.

To establish a *prima facie* case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings, there must be a reasonable expectation of success, and the prior art reference (or references when combined) must teach or suggest all of the claim limitations.

As discussed above, Yasutake fails to teach or suggest an input waveguide irradiating light from a light-emitting section to the surface of the cantilever *at an oblique angle*, and an output waveguide receiving light reflected by the surface of the cantilever *at an oblique angle*. Dabbs fails to cure the deficiencies of Yasutake. In that regard, Dabbs also fails to teach or

suggest an input waveguide irradiating light from a light-emitting section to the surface of the cantilever *at an oblique angle*, and an output waveguide receiving light reflected by the surface of the cantilever *at an oblique angle*. Therefore, for at least these reasons, Claims 1 and the claims depending therefrom are not obvious in view of Dabbs and Yasutake, whether taken alone or in combination. Accordingly, applicants respectfully request withdrawal of the rejections to these claims.

CONCLUSION

In view of the foregoing amendments and remarks, applicants respectfully submit that the present application is in condition for allowance.

The Examiner is requested to contact applicants' representative at the number set forth below to discuss any issues that may facilitate prosecution of this application.

Respectfully submitted,

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